

COVID-19 POC testing in remote Aboriginal and Torres Strait Islander Communities: informing a community-led response in an uncertain environment

Authors:

Tangey A^{1,2}, Schultz R², Ewan S², Hengel B¹, Causer LM¹, Guy RJ¹

¹ Kirby Institute, UNSW Sydney; ² Ngaanyatjarra Health Service, WA

Background/Approach: Ngaanyatjarra Health Service (NHS), an Aboriginal community-controlled health organisation, provides primary health and aged care services to ten remote communities in Western Australia (WA). NHS depends on weekly mail planes to transport laboratory specimens. For COVID-19, such infrequent services could have serious implications because of the risks of rapid, widespread transmission and severe disease in Aboriginal communities with high prevalence of comorbidities. Delays in test results would also challenge the stability of the frontline workforce. NHS enrolled in the Aboriginal and Torres Strait Islander COVID-19 point of care (POC) testing program, leveraging existing GeneXpert platforms used for sexually transmitted infections, and established a hub-and-spoke model for COVID-19 testing.

Analysis/Argument: We describe how access to molecular POC testing was pivotal in enabling NHS's community-led response to (i) follow public health directives to maintain the workforce, (ii) scale up and integrate testing, thereby reducing unnecessary isolations and evacuations, (iii) enable early case identification for rapid public health responses to contain local outbreaks, and (iv) case manage those at risk of severe disease.

Outcome/Results: From August 2020 – October 2022, NHS conducted 970 COVID-19 POC tests (645 before the first positive result), with 10.5% positivity. Almost half (49%) of POC tests were performed on frontline workers. The first community transmissions in a remote WA Aboriginal community were identified via a POC test in February 2022 from an NHS spoke clinic, triggering an immediate targeted outbreak response. POC testing subsequently identified the first cases in adjacent communities, and in combination with rapid antigen tests, informed cases, contact and household isolation requirements and management of medically vulnerable individuals.

Conclusions/Applications: Molecular POC testing enabled a swift community-led response, empowering health services during great uncertainty. POC testing underpinned the public health response and collaboration with population health, police, and other services, enabling NHS's effective response to COVID-19.

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